

## ON THE STUDY OF TUBERCULOSIS.\*

By WILLIAM OSLER, M.D.,  
of Baltimore, Md.

THE history of the acceptance of any great truth in medicine is an interesting study. A slow, gradual recognition seems essential to permanency and stability. As Locke well said, "Truth scarce ever yet carried it by vote anywhere at its first appearance." Even in this electric age the practical application of new knowledge is singularly tardy. Antiseptic surgery took twenty years to win its victory, and for about the same period we physicians have been participants in another long warfare, the successful outcome of which may be said to be now in sight. The twentieth anniversary of the discovery of the germ of tuberculosis by Robert Koch is near at hand—a discovery which, in far-reaching results, will prove to have had few equals in human history. Since 1881 the laboratory phase of the question, with its experiments and researches, has so far been the most complete; the clinical side has been enriched with two facts of supreme importance; first, the earlier and more positive diagnosis of the disease; and, second, a fuller knowledge of the means for its cure; and we have now entered upon an economic stage, and the tuberculosis leagues and congresses, laws and enactments, show how alive we have become to the importance of the disease in national and civic life.

I. *General Relations of Tuberculosis.*—If we compare the mortality bills of any large city today with those of fifty years ago, the most striking change is in a reduction of the deaths from fever, and in the absence of the names of certain diseases which were formerly amongst the most fatal of their kind. Public hygiene has done a great work in ridding us of several of the great scourges,

---

\* Introductory Remarks at the organization of a Society for the Study of Tuberculosis, Johns Hopkins Hospital, October 30, 1900.

and in lessening the danger from such epidemics as cholera and yellow fever. Of the 10,152 persons who died last year in this city, 3,765 were victims of the infectious diseases. Measles, scarlet fever, diphtheria, whooping-cough, influenza and dysentery together accounted for 801. Three diseases head the list, each one as fatal as all the others combined; tuberculosis of the lungs 974, pneumonia 778, and cholera infantum 703. If we add the deaths due to tuberculosis of other organs, we are well within the mark in saying that one-tenth of the deaths in this city are due to this disease. It is estimated that above a million of persons are suffering with consumption alone in this country, of whom at least 150,000 die annually. The white plague, as Holmes called it, is the great scourge of the race, killing more than 5,000,000 yearly. Let me read you an abstract from De Quincy, which, while expressing an old, erroneous idea, gives in his strong and characteristic language the terrible, the appalling nature of this annual slaughter. "Are you aware, reader, what it is that constitutes the scourge (physically speaking) of Great Britain and Ireland? All readers, who direct any part of their attention to medical subjects, must know that it is pulmonary consumption. If you walk through a forest at certain seasons, you will see what is called a *blaze* of white paint upon a certain *élite* of the trees marked out by the forester as ripe for the axe. Such a blaze, if the shadowy world could reveal its futurities, would be seen everywhere distributing its secret badges of cognizance amongst our youthful men and women. Of those that, in the expression of Pericles, constitute the vernal section of our population, what a multitudinous crowd would be seen to wear upon their foreheads the same sad ghastly blaze, or some equivalent symbol of dedication to an early grave. How appalling in its amount is this annual slaughter amongst those that should by birthright be specially the children of hope, and levied impartially from *every* rank of society! Is the income-tax or the poor-rate, faithful as each is to its regulating tide-tables, paid by *any* class with as much punctuality as this premature *florilegium*, this gathering and rendering up of blighted blossoms by *all* classes? Then comes the startling question

—that pierces the breaking hearts of so many thousand afflicted relatives—Is there no remedy? Is there no palliation of the evil?" Let us be thankful that we can answer today—There is!

II. *Some Special Features of Tuberculosis as a Subject of Study.*—In a comprehensive view of the diseases which we are called upon to study, three only are of wide and universal interest—tuberculosis, cancer, and syphilis. In almost every particular tuberculosis out-tops the others. It is a disease of extensive distribution among animals, in which the veterinarian is interested equally with us. The general surgeon must know it thoroughly, and it occupies his thoughts almost as much as cancer, and his hands more than syphilis. The specialist must be familiar with its manifestations. Though not a disease upon which the specialist thrives, the laryngologist, the neurologist, the gynecologist, and the dermatologist see cases almost daily. Syphilis has a more enduring grasp, and, not content to follow man from the cradle to the grave, nips the fruit in the bud, and more often brands and maims than kills. Tuberculosis and cancer respect the embryo, and are not factors in intrauterine pathology. In many ways syphilis is the most benign of the three. There is a silver lining on the luetic cloud, which we never see in cancer, and not often enough in tuberculosis. And yet tuberculosis, which is a more serious disease than the others combined, offers a greater hope of a reduction in its ravages. We know the cause, the conditions under which the germs thrive and the modes of infection, and the public is at last awake to the importance of the subject, as shown by the remarkable manifestation of national and civic interest during the past few years. We have reached agreement on two points; first, the right of the State to insist that a tuberculous patient shall not be a source of danger to others, (and to this end there must be some supervision, to the extent at least of notification of the cases); and, secondly, the duty of the State, of civic authorities, or of private benefaction to provide suitable accommodation for the poor consumptives. The danger is not from the few well-to-do patients, in whose environments there may be less risk of infection than elsewhere. A person would probably run less risk of

"catching" consumption in the Adirondacks' sanatorium than living in the tenement districts of New York, or in the Jewish quarter of this city.

III. *The Physician as a Student of Tuberculosis.*—The brunt of the battle in the warfare against tuberculosis falls on the medical profession. We must not only be alive to our duties, but thoroughly prepared to carry them out. If a man looks back on the best work of his life he will find it to be that for which perhaps he has had the least acknowledgment from the public or his colleagues in either cash or credit; and so it must ever be with the work of the units of our army, and particularly in their crusade against tuberculosis. Within the past ten years there has been an extraordinary change in the attitude of the average doctor to the question of consumption; he is more expert in the early recognition of the disease; he appreciates the conditions under which cure may be expected, and he is more ready to take every advantage of the opportunities offered by the health boards and their laboratories; but I must confess he still very often lacks the enthusiasm which is necessary to make a strong fighter. I know how hard it is in general practice, particularly among the poor, to carry out instructions which we rattle off so glibly or write down with so much self-satisfaction, but physicians cannot escape from their responsibility in this matter. To them the public must turn for help, since they alone can insist that the tuberculous patients shall live a hygienic life, and when all fully realize their duties we may look for a marked reduction in the incidence of the disease. The really serious peril is the prevalence of the disease among the poorer classes, who live in the smaller houses and tenements, who for the most part have no physicians to advise and instruct them, and who seek aid at the hospitals and dispensaries. Two years ago I was much impressed with the number of such cases applying at our out-patient department of the Johns Hopkins Hospital, and some kind friends placed at my disposal a sum of money which was to be used to promote the study of tuberculosis, and to diffuse among the poor a proper knowledge of how to guard against the dangers of the disease. A plan of systematic visiting of each applicant was organ-

ized, and Miss Dutcher will speak of her experience during the past year. It was felt that if a well-informed and sympathetic person paid a visit to the house, saw the conditions under which the patient lived, directions could be given with much more likelihood that they would be carried out. Valuable information could also be obtained as to the mode of life and surroundings of these people.

This Society has been organized to promote the study of tuberculosis among the physicians and surgeons of the Hospital, the senior students of the Medical School, and any physicians who may wish to attend our meetings. Believing in the inspiration of great names, we have called it after the name of the greatest student of the disease. An historical review of the great epochs, a minor item relating to the symptomatology of the disease, a critical summary of the conditions relating to tuberculosis in the country at large and in this city, together with a presentation from each of the departments of the work upon tuberculosis in the Hospital during the first decade, will constitute our program for the session.